

ROBOTIC TECHNOLOGY HELPS OFFSET WORKFORCE  
SHORTAGE

**ABOUT APPLIED ENGINEERING.** Applied Engineering & The Freeman Company's of Yankton, South Dakota, employs approximately 240 people. They have developed a strong apprenticeship program to advance students' skills in precision machining and continue to sponsor students through the Build Dakota Scholarship program for those seeking a two-year degree in technical education.

**THE CHALLENGE.** Even with all their workforce efforts, the tight labor market and economic expansion required Applied Engineering, Inc. & The Freeman Company to look for innovative solutions to combat the workforce shortage they faced. The company decided to contact South Dakota Manufacturing & Technology Solutions (MTS), a NIST MEP affiliate, who they viewed as a trusted resource, to advise them on how to increase production levels to meet customer demand without adding additional labor.

**MEP CENTER'S ROLE.** MTS set up an initial meeting with Applied Engineering Inc & The Freeman Company to talk about their goals, challenges, and to generate some ideas for potential projects. The manufacturing team gave MTS a facility tour, and together they identified opportunities for automation. From there, the group decided the best solution would be to implement a collaborative robot. After specifying the equipment needs, MTS helped calculate the robot's ROI, and developed a detailed plan to move forward.

Over the next six months, MTS worked collaboratively with the manufacturer to design, integrate, and train staff on how to use the new technology. Once the final development was complete, MTS started to train the engineers. MTS met with the employees who oversaw the equipment and taught them how to operate the new technology. Soon the staff became comfortable using the equipment and began to use it in their daily operations.

The new robotic technology transformed operations from simply surviving to thriving. It allowed operations to be restructured more efficiently to free up valuable employee time. The impact was exponential. Today, MTS continues to work with the Yankton team to design and integrate custom automation so that they can meet their customer demand and increase their capacity for future sales. MTS takes pride in helping businesses position their company for growth and achieve real results.

## RESULTS



Increased machine utilization by approximately **23%**



Created a process that is **100%** consistent and repeatable 100% of the time



Supported business growth in a time of labor shortage



Created an uninterrupted workflow

## CONTACT US



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"The services provided by South Dakota Manufacturing & Technology Solutions are vital to the overall success of our company and aided Applied Engineering in realizing record growth with the labor shortage at an all-time high. Their staff consists of industry professionals who focus on continuous improvement and have access to a wealth of resources for additional support. MTS continues to assist us with productivity and technology projects allowing our business to grow and support increasing customer demands. Excellent job SD MTS! You are a key business partner to our company and we look forward to working with you in the future."

-Justin Schramm, President